CERES Systems Engineering Committee

Members: Maria Mitchum, NASA, DMO
Sandy Nolan, SAIC
Jill Travers, DAAC

Charter: Serve as a forum for resolving issues which affect more than one working group. Report to CERES Data Management Team

January 20, 1998 1:00 pm

Paula Detweiler, a representative from the DAAC Product Generation Group, attended this CERES SE meeting. Alice Fan was also asked to attend part of the meeting.

Maria went over the Product Generation Development Team Weekly Status Report from Bob Ignatio and her report from the January 14, 1998 meeting of the Systems Engineering Committee with the LaTIS DAAC.

The following system issues were discussed:

1. DPREP is running on the automated system in parallel with runs on the manual production system. A new version of DPREP is coming and the Product Generation System (PGS) will need to be updated, when it is received. When Ingest receives files, it sends messages to the PGS. When PGS has been notified that all of the required input files (based on PGE Production Rules) for a PGE are available, then the PGE will be executed. The system goes back to the Production Rules and makes sure that everything listed was created, checks the exit codes, sends email to the CERES representative, and places the information about the run in the data base. Under the current processing scenario, the web based tool is only used to start special processing requests.

2. All DAAC processing to-date has used predicted data from UTCpole and Leapsec files. This information is not reflected in the product metadata.

3. For reprocessing, Jim would like to have all of the old files deleted. When a subsystem makes a new delivery, then the SCCR and CC code will change, but subsystems further down the processing chain will not reflect that change unless they also make a new delivery. Paula needs to know which files need to go in the archive, before reprocessing begins.

4. Paula will write and send a list of questions about which files to save. It will include:
   A. Which files to archive and when to archive them.
   B. Which files need to be sent to the SCF for QA and the number and size of these files. (Files that will be pushed to lightning.)
   C. To which SCF directories will the files be pushed?

5. Paula requested that CERES Test Plans reference the PGE names/numbers. She hasn't been able to match the PGEs in production with the list of PGE names.

6. Paula asked what will go out as a distributable product. Should it be the granule and the .met file? A utility is being developed that will turn the ODL file into "English text". Should this version of the metadata be sent with the granule?

7. Paula needs to know which files should be available for ordering by the world? Which files should be available for ordering by only the Science Team? Which files should go into the IMS? Which files should be archived?

8. Maria stated that 14 types of granules can be ordered. There is/should be a a web based tool with Science Team contact information which is set up for Science Team viewing of data sets.

9. Paula will send the DAAC requirements for read software to the CERES SE committee. Read software will be delivered through CM and will be placed in a subdirectory under the working group src directory. Documentation on how to run the software should also be in that directory.

10. Maria asked if anything had been written to read the Configuration Code Table. Paula said that the information can be read from the Product Generation Data Base. Maria said that for all subsystem that make deliveries to the DAAC, all PGEs in that subsystem will get the same new Configuration Code. Maria should talk to Tonya Grant about what is being captured in the Data Base. Paula said that she should be able to download the table.

11. Paula said that Codine captures exit codes and sends that information back to the Product Generation Data Base through email. The email message will be parsed to extract the exit code.

12. Paula requested rules for how much information needs to be saved when a PGE fails. How much of the input will be required?

13. There was a discussion about appending a version number to the end of product name. This would require a new naming convention. Maria said that the latest file will always be staged. Maria suggested that we add V###.

14. Maria asked Alice to update the Metadata wrapper to write the Log file names to all product archival metadata.

15. Paula asked that the product metadata be changed to reflect the actual number of input files and not a maximum number. The IMS needs to keep track of all input products that were used to create the product. Jill will check with MISr and MOPITT to see if they are setting a maximum number or the exact number of input files in the metadata.

16. Paula reported a problem in the metadata of Subsystem 1 QC files. The shortname recorded in the metadata for each QC file matched the product shortname and not the shortname associated with the QC ESDT.

17. There was a discussion about how to keep the Toolkit version at the DAAC and SCF consistent. Alice will notify the SA and the SCF Toolkits will be updated. When a subsystem delivery is made, the DAAC will be notified which Toolkit Version (including which patches) were used.

Meeting adjourned 3:50. skn.

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Members: Maria Mitchum, NASA, DMO
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January 27, 1998 1:00 pm

The committee discussed the following system issues:

The minutes from January 20, 1998 were approved with the following change: Item 13, in reference to adding a version number to CERES filenames, was vetoed by DMT management. A new design of the ConfigurationCode number is now underway by this committee and the DAAC personnel.

The leapsec and utcpole files: There is still considerable discussion about whether CERES can or should run with predicted data (max of 5 days predicted between utcpole updates). Troy is running test using DPREP output (predicated data) and DPREP output (actual data) to determine what the impact is.
The final decision for processing will be made using these results.

Alice Fan had inquired as to whether the names of the Log files needed to be placed in the archive metadata. The committee decided that this was not necessary due to the new Log file naming convention.

The new CC code was discussed. Another meeting will be necessary with DAAC CM/Product Generation teams since Bruce Barkstrom has requested that the external factors part of the CC be reset to 000 when the Production Strategy changes.

The TISA group had asked about file disposition. Jill reported that files are archived and files specified by CERES would be pushed to the SCF for QA. The DAAC needs the list of files from each working group.

Bob Ignacio and Tina Rogerson joined the meeting to report on progress of the automated Product Generation System. Current status is that DPREP successfully ran in automation (i.e. input files received, recognized by the system and the DPREP job was started).

Erika Geier has requested a name of a CERES person for QA testing during DAAC certification testing. Maria had further discussion with Erika on this issue to decide on the appropriate person.

At the previous meeting, a discussion about the number of input being reported in the .met needed to be the actual number not the maximum. The value in the MCF that sets the maximum number cannot be reset to the actual. The committee and Alice Fan decided that a new PSA was needed.

This PSA
"NumberInputFiles" is the actual number of input files and will be placed in the inventory metadata.

In response to information sent by Tom Atwater during Early SSI&T of Subsystem 1, the committee discussed the sensor attribute. In the ECS data model, this attribute is mandatory. CERES is currently not setting this attribute. Maria was going to discuss with Bruce Barkstrom as to if this attribute should be set and if so to what value.

Joe Stassi joined the end of the meeting to discuss CERESlib deliveries. When CERESlib is delivered the current mode of operation is not to recompile anything only new deliveries. This will probably need to change. It was discussed as to whether Joe could provide the DAAC with a list of CERESlib modules that had changed and which Subsystems needed recompilation. Joe indicated that he could provide the list of changed modules but that he did not always know which Subsystems needed to be recompiled. It was decided that each Subsystem needed to respond to the DAAC whether to recompile and move into production their PGEs based on the notification that CERESlib would be modified.

Meeting adjourned 3:00. djt.